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United States Affiliate of International Physicians for the Prevention of Nuclear War

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Re: Comments on the Transportation and Storage Subcommittee Draft Report

The following are PSR's comments on the Blue Ribbon Commission's Transportation and Storage Subcommittee May 31, 2011 draft report. While PSR supports the draft report's Recommendation #5 for a "science-based, consent-based, transparent, phased, and adaptive" waste management process, we are dismayed that the draft report recommends consolidated interim storage and punts the issue of hardened on-site storage to the Nuclear Regulatory Commission.

Recommendation #1 Is Not Realistic

The subcommittee's "central and most important recommendation" that the "United States should expeditiously establish one or consolidated interim storage facilities" flies in the face of past experience. Although the subcommittee acknowledges that "this is not a 'new' recommendation," it fails to explain how such an effort will succeed *this* time. A consent-based process that is transparent, phased, and adaptive and that holds to rigorous science-based standards is impossible if the goal is to speed towards centralized "interim" storage. A fast process and one that meets those important principles is fundamentally incompatible.

Moreover, the subcommittee's five justifications for recommending off-site "interim" storage are seriously flawed:

- Consolidated interim storage also takes "a long lead time" and would be an enormous distraction that will take away resources (financial, human, and time) from an effort to find a permanent repository, as was shown by previous attempts to establish off-site storage. Siting off-site storage facilities has not proved to be a speedier or more successful process than for a permanent repository.

- Experience with storage, such as the handling and packaging of materials and aging R&D, can and should be developed at reactors – before moving the waste. Given the prerequisites for safe transport identified by the February 2006 National Academy

of Science study on the transport of radioactive waste,[1] it is clear that no entity in the US is currently ready for large-scale shipment of spent fuel.

- The subcommittee overemphasizes the scope of the spent fuel problem from so-called "orphaned" reactor sites, of which there are only nine in the country. These can be addressed relatively easily on a case-by-case basis – as compared to focusing on moving waste from 60-some sites around the country. The number of shutdown reactors will not likely increase "rapidly" in the next 30 years, because the Nuclear Regulatory Commission has approved *every* relicensing application thus far (70 of them). Moreover, most new reactors are proposed at existing sites.

- Current intelligence indicates that ongoing problems at Fukushima do not come from the dry cask storage at the site, which has apparently survived the earthquake and tsunami intact. Rather, Fukushima illustrated very clearly that spent fuel pools are vulnerable. Therefore, it is unclear how the subcommittee jumped to the conclusion that a lesson of Fukushima is that US must move spent fuel off-site. Off-site storage will not obviate the need for spent fuel pools, because used rods must remain in pools for a minimum of five years before being transferred to dry casks. As long as there are operating reactors, the issue of protecting the integrity spent fuel pool from natural disasters, station blackouts and terrorist attacks will continue. Moving some waste off-site, as opposed to hardening the waste and the pools on-site, will not address this fundamental problem.

- The government has failed to meet its contractual obligations to take spent fuel from reactor sites by 1998. Attempting to establish off-site storage will not relieve the US government of its full financial liability for decades, at best. On the other hand, no matter what decision is made about spent fuel management going forward, the US government will have to renegotiate its contracts with utilities. Taking title to spent fuel at reactor would immediately resolve the financial liability issue.[2]

The subcommittee claims that providing consolidated interim storage will offer a measure of confidence to communities by moving the waste off-site. Without a permanent disposal site (not just a search for one), however, these "interim" sites will likely become indefinite long-term parking for high-level nuclear waste, which will create controversy and ultimately severely erode public confidence.

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[1] National Academy of Science, *Going the Distance? The Safe Transport of Spent Nuclear Fuel and High-Level Radioactive Waste in the United States* (2006), http://fermat.nap.edu/catalog/11538.html

[2] I was told by one BRC member on this subcommittee that it is "illegal" to take title to the waste at the sites, even though legislation. I am quite confident that Congress could address any inconsistencies in existing law, and as stated above, the contracts will have to be renegotiated and could be adjusted accordingly.

Fundamental Misunderstanding of HOSS

The BRC is required in its charter to consider "options for safe storage of used nuclear fuel while final disposition pathways are selected and deployed." The subcommittee's draft Recommendation #2 acknowledges that "there may be substantial lead-times" for opening one or more off-site storage facilities. Therefore, the subcommittee is currently only recommending longer-term options. Moreover, the subcommittee has inappropriately passed the buck to the NRC. Just because the issue of HOSS is pending in a rulemaking petition does not preclude the BRC from recommending it. There is little public confidence in the NRC rulemaking process; the HOSS petition (PRM-72-6) has been pending since 2008.

More than 170 national and local organizations from all 50 states agree that HOSS is the only sensible option for addressing the *immediate* security threat posed by spent fuel storage at reactors sites. The benefits of the HOSS proposal include broad community support, low-cost, and maximum safety. The draft report needs to acknowledge that the NRC has failed to require all of the recommendations of the 2004 National Academies of Science report. Another NAS study is unnecessary and will only further delay the measures that have already been identified to protect public health and safety.

The subcommittee concludes that "obviously, any hardened system could be implemented more cost effectively at a consolidated storage facility than at existing sites due to economies of scale. " This conclusion – which is not obvious or necessarily accurate – misses the point of hardening the waste *at reactor sites* in order to address the immediate security threat. Waiting to harden this waste until after one or more off-site storage facility or facilities are identified, licensed, and accepting spent fuel would leaves the waste vulnerable for at least a "substantial" amount of time.

The industry's argument cited on page 20 that HOSS could "collapse under attack and interfere with the cooling of the fuel" also misses the point – HOSS is to be designed for "resistance to severe attacks, such as a direct hit by high-explosive or deeply penetrating weapons and munitions or a direct hit by a large aircraft loaded with fuel or a small aircraft loaded with fuel and/or explosives, without major releases." The subcommittee should examine Germany's hardened storage of spent fuel.

Sincerely,

Michele Boyd
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